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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,546	01/10/2002	Takeshi Yoshimura	3815/147	7337

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EXAMINER

LEMMA, SAMSON B

ART UNIT PAPER NUMBER

2132

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,546

Applicant(s)

YOSHIMURA ET AL.

Examiner

Samson B. Lemma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4 & 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1-16** have been examined.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119 (a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 4-6, 8-16** are rejected under 35 U.S.C. 102(b) as being anticipated by **Barnes et al.** (hereinafter referred as **Barnes**)(U.S. Patent 4,159,468)

5. **As per claims 1 and 11** **Barnes** discloses an encryption apparatus for encrypting and transmitting a bit stream of media information [column 4, lines 19-21] (**Plain text**) which is sent from a transmitting terminal, said encryption apparatus comprising:
Means for deciding a type of the bit stream; [Column 10, lines 2-4] (**"When the start of the text (STX) and end of the text (ETX) is present in a message, it indicate/define**

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the type of message which should be encrypted meet the recitation of deciding a “type of the bit stream”) and

Means for encrypting the bit stream in accordance with the type of the bit stream decided by said means for deciding. [Column 10, lines 2-4; column 10, lines 14-16] **(The device will begin the encryption process on the detection of STX, and end the process on the detection of ETX meets the recitation of encrypting the bit stream in accordance with “the type of the bit stream” decided/detected by said deciding means. Hence the device can selectively encrypt selected portions of the message and leave other portions to be transmitted in plain text as explained on column 10, lines 14-16)**

6. **As per claims 4-5 and 12-13 Barnes** discloses a decryption apparatus comprising: means for receiving a bit stream sent from a transmitting terminal; means for deciding as to whether the received bit stream is encrypted or not; and means for decrypting the received bit stream when a decision is made that the received bit stream is encrypted. [Column 9, lines 38-41; figure 17] **(The receiver mode, the device is transparent to all input message except for message beginning with SOH, and the message text delineated by STX and ETX character, when this is observed the receiver will inherently decide that the received stream is encrypted and if the message text is not delineated by STX and ETX character it will be decided that the received text/bit stream is not encrypted. Therefore, the decryption/ authentication process is initiated in the receiver or a decision is made in the receiver for decrypting by the presence such/other identification. And decryption is done accordingly.)**

7. **As per claims 6, 8-9, 14-16 Barnes** discloses an authentication information assignment apparatus that provides authentication information to a bit stream of media

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information sent from a transmitting terminal, and sends them, [Column 23, lines 36-60] said authentication information assignment apparatus comprising:

Means for deciding a type of the bit stream; ["detection of ETX" as explained on column 64, lines 64-68] and

Means for providing the authentication information ["authentication field AF" as explained on column 23, lines 57-58] in accordance with the type of the bit stream decided by said means for deciding. [Column 23, lines 54-59] (When the start of text (STX) and end of text (ETX) characters is present in a message, it indicate/define/decide a type of message which should be authenticated as explained on column 23, lines 54-59.]

8. As per claims 10 and 17 Barnes discloses the authentication apparatus as applied to claimed in claims 8 and 15 above. Furthermore Barnes discloses the apparatus , further comprising means for transmitting the bit stream to a receiving terminal, when said means for making authentication gives an authentication result that the received bit stream is valid. [Abstract] (If the two authentication fields are identical/Valid, the plain text message has been received exactly as it was transmitted, and the receiving device will transmit the plain text portion of the message received to the receiving terminal, appending thereto a character indicating message integrity)

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 2, 3 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over by **Barnes et al.** (hereinafter referred as **Barnes**)(U.S. Patent 4,159,468), in view of **Ishibashi** (hereinafter referred to as **Ishibashi**) (U.S. Patent 6,021,199).
11. **As per claims 2, 3 and 7** **Barnes** discloses an encryption apparatus for encrypting and transmitting a bit stream of media information [column 4, lines 19-21] (**Plain text**) which is sent from a transmitting terminal, said encryption apparatus comprising:
- Means for deciding a type of the bit stream; [Column 10, lines 2-4] (**"When the start of the text (STX) and end of the text (ETX) is present in a message, it indicate/define the type of message which should be encrypted meet the recitation of deciding a "type of the bit stream")** and
- Means for encrypting the bit stream in accordance with the type of the bit stream decided by said means for deciding. [Column 10, lines 2-4; column 10, lines 14-16]
- (**The device will begin the encryption process on the detection of STX, and end the process on the detection of ETX meets the recitation of encrypting the bit stream in accordance with "the type of the bit stream" decided/detected by said deciding means. Hence the device can selectively encrypt selected portions of the message and leave other portions to be transmitted in plain text**)
- Barnes** does not explicitly disclose the type of the bit stream is determined by difficulty in restoration of the media information after a part of ciphertext is cryptanalysis.

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This claim has been interpreted in the eye's of the applicant specification. The following has been recited in the applicant specification in explaining the term **"difficulty in restoration of the media information after a part of ciphertext is cryptanalysis"**

" Among the three types of pictures, the I-pictures 406 are an intra-frame codedpicture, from which the original bit stream can be easily restored if this type of the bit stream is broken. On the other hand, the P-pictures 402 and B-pictures 404 are a prediction coding picture consisting of the difference data between multiple motion pictures. Accordingly, it is difficult to restore the original media information even if only the bit stream of these types are cryptanalyzed. Thus, the encryption/authentication selector 102 in the encryption/authentication assignment apparatus 100 as shown in FIG. 3 decides the picture type of the motion picture data to be transmitted. Then, the encrypting section 104 encrypts it when it is the I-picture 406. On the other hand, as for the P-pictures 402 and B-pictures 404, they are transmitted without being transformed through the encryption"

However, in the same field of endeavor, **Ishibashi** discloses, the same features as explained on the abstract as recited as "Of I, P and B pictures contained in an MPEG 2 data stream, only the I picture is subjected to encryption such as scramble processing."

[See Abstract, first 3 lines.]

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to combine the feature of selectively encrypting the I-pictures as per teachings of **Ishibashi** in to the method of encryption/authentication as taught by **Barnes**, in order to provide efficiency and copy protection/security simultaneously. [See **Ishibashi** column 2, lines 7-21]

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.(See PTO-Form 892).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samson B Lemma whose telephone number is 571-272-3806. The examiner can normally be reached on Monday-Friday (8:00 am---4: 30 pm).

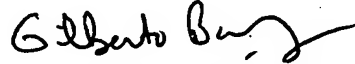
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BARRON JR GILBERTO can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAMSON LEMMA

S-L

06/14/2005


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